# COUTEUTS

### SYMPOSIUM A — PLANNING AND SCHEDULING

- A-1 Recognizing and Avoiding Problems Inherent in Today's Scheduling Environment David L. Freidl, CCF
- A-2 Drawing Schedules on a PC with CAD Philip T. Perzanowski
- A-3 Utility Rate Case: Schedule Analysis Anthony J. Werderitsch, PE CCE and Clive D. Francis, CCE
- A-6 New Graphical Planning Representation with ICES-Project 1 Edmond Miresco, Michael Beliveau, and Pierre Gilbert
- A-7 Schedule Risk Analysis Using Computer Simulation Joseph J. Orczyk, PE and Donn Hancher, PE

#### SYMPOSIUM B — COMPUTER APPLICATIONS

- B-1 The Business of Engineering: Project Marketing/Project Performance Gregory B. Coleman
- B-2 Cost Estimating and the Personal Computer Ronald A. Barry
- B-3 Protection Issues for Distributed PC Estimating David P. Davison, Sr., PE
- B-4 Automated Estimating Systems for Small Contractors David M. Rhyne and Kurt D. Kaminsky
- B-6 Database Management Systems for Construction Managers Fwu-Shiun Liou and Mohammed Abullatif
- B-7 Six Steps to Successful Expert Systems Sam L. Shafer, PE and Richard E. Westney, PE
- B-8 Advanced Technology in Cost Engineering: A Panel Discussion
  - Fourth Generation Languages in Project Management Anthony P. G. Welsh
  - Evolution of Computerized Takeoffs and Estimating Marsh V. Racine

#### SYMPOSIUM C — CAPITAL COST ESTIMATING

- C-1 LANL PC Estimating System Roger A. Stutz, CCE, Glenn D. Lemon, A. L. Dudley, and Stephanie Sonnleitner.
- C-2 Parametric Estimating Factors for Demolition Costs William E. Gallagher, CCE, Thomas C. Ponder, Jr., PE CCE, and Juan M. Castro, PE CCE
- C-3 Parametric Cost Estimating: A Guide John W. Hackney, CCE, Kay Hudson, and Lesley Gasperow
- C-4 Computerized Cost Model for Superfund Technologies William F. Kemner, John Abraham, PE, and Jay Palmisano
- C-5 High Speed Rail: Costs and Financing Charles A. Larson, CCE
- C-6 Preliminary Cost Estimating for Highway Construction Projects Lansford C. Bell and Ghazanfer A. Rozai
- C-7 A Uniform Method of Estimating Quantities Kweku K. Bentil
- C-8 Measuring Estimating Group Performance John B. Miller, PE
- C-10 Spreadsheet Estimating: Programming Without Knowing a Language Richard A. Roberts, CCE
- C-11 Conceptual Estimation and Budget Control William Noble

# SYMPOSIUM D — OPERATING AND MANUFACTURING COSTS

- D-1 Rationalising an Un-profitable Gas Utility Edward O. Naughton
- D-2 Manufacturing Cost Estimating and Control Frank C. Wilson, CCE

# SYMPOSIUM E - ENERGY COSTS

E-1 Energy Cost Committee Forum: Estimating Costs for Life Extension Projects — Thomas C. Ponder, Jr., PE CCE

# SYMPOSIUM G - MANAGEMENT SYSTEMS

- G-1 Advanced Progress Measurement Concepts with Micros Fred L. Mahler, CCE
  - G-3 The 5-Year Living Schedule Ralph L. Cochran and Patricia D. Galloway
  - G-4 Knowledge-Based Systems in Cost Engineering Carl Wolf and Gordon S. Kalley
  - G-5 Developing a Computerized Engineering Progress Measurement System Moses Yuen and Derek Klotz
  - G-6 Cost Estimation as a Complexity Modeling Problem Celestine A. Ntuen and Arup K. Mallik
  - G-7 Construction Project Document Management Aided by Microcomputers Donald F. McDonald, Jr., CCE

#### SYMPOSIUM H — CONSTRUCTION COST AND SCHEDULE PRINCIPLES

- H-2 Improving Project Management for Claims Reduction John J. Yanoviak, CCE
- H-3 Controlling Job Costs Through CPM Scheduling Philip S. Inglis
- H-4 Minimizing Costs of Delay Construction Claims Dwight A. Zink
- H-5 Time is Money! Philippe Le Therisien, CCE
- H-6 Theories of Concurrent Delays Gui Ponce de Leon, PE

#### SYMPOSIUM I — CAPITAL COST CONTROL

- 1-2 What Management Expects of Cost Engineers Robert L. Kimmons
- 1-3 Learning From a Billion Dollar Project Akhtar A. Alvi, PE and Michael D. Keilberg, PE
- 1-4 Remote Project Cost and Schedule Control Charles Poulton, P Eng CCE and J. Michael Shannon
- I-5 The Appraisal as a Business Tool Ingram C. Myers, Jr., CCE

# SYMPOSIUM J - UTILITY COST MANAGEMENT

- J-2 A System to Manage Retrofit Project Budgets Charles W. Henderson
- J-3 Flue Gas Desulfurization: Costs and Concerns David P. Burford
- J-5 Power Plant Economy of Scale Revisted James J. Stevenson, Jr., CCE and Paul H. Walker, CCE
- J-7 Regulatory Treatment of Nuclear Plant Costs; An Overview Patrick L. Baryenbruch
- J-8 Outage Project Management: Tool or Whip Dale R. Probasco
- J-9 Cost Trend of USA Nuclear Power Farid F. Mansour, PE CCE
- J-10 Property Asset Reports: Why Are They Needed? Sandi L. Tracy

# SYMPOSIUM K - PRODUCTIVITY

- K-1 Methods for Construction Productivity Measurement Jeffrey S. Russell and Luh-Maan Chang
- K-2 Construction Site Operations-Perceptions of Tradesman Enno Koehn, Michael W. Pratt, and Ryan Cook
- K-4 Increasing Onsite Production Andrew G. Smith, CCE

# SYMPOSIUM L — EDUCATION

- L-1 Oral Delivery of a Technical Paper H. F. Shealy, Jr., CCE
- L-2 Training in Today's Dynamic Contracts/Estimating Environment Robert E. Johnston and Francis C. Cannon

#### SYMPOSIUM N - PROFITABILITY

- N-1 Impact of the 1986 Tax Law on Projects Henry C. Thorne, CCE
- N-2 Reinvestment Fallacy Revisted Julian A. Piekarski, PE CCE

#### SYMPOSIUM 0 — MINING AND MINERALS

- **0-1** A Decision Support System for Mine Evaluations Nelson E. King
- 0-2 Uinta Basin Tar Sands Deposits Gordon F. Jensen

# SYMPOSIUM P — CONSTRUCTION COST MANAGEMENT

P-2 Field Conditions Impacting Construction Budgets — John DiNatale, CCE
P-5 Cyclic Linkage Between Cost Control and Estimating — George S. Birrell
P-6 How Good Is Your Project Execution Capability? — James A. Bent, CCC
P-7 PC Spreadsheet Estimates of Concrete Mixture Costs — Ronald L. Dilly

# SYMPOSIUM S - SKILLS AND KNOWLEDGE OF COST ENGINEERING

A Special Section Covering the Basic Skills and Knowledge Required by Today's Cost Engineers

**S-0** Introduction - Brian D. Dunfield **S-1** Estimating Basics - Kweku K. Bentil S-2 Applied Estimating: Definitive - Kweku K. Bentil **S-3** Applied Estimating: Conceptual Cost Estimating - Kweku K. Bentil S-4 Operating and Manufacturing Costs - Kenneth K. Humphreys, PE CCE S-5 Scheduling Basics - Brisbane H. Brown, Jr. **S-6** Applied Scheduling - Brisbane H. Brown, Jr. S-7 Project Planning - Remo J. Silvestrini, PE Progress and Cost Control Basics - James M. Neil, CCE S-8 **S-9** Applied Progress and Cost Control - James M. Neil, CCE S-10 Basic Engineering Economics — Julian A. Piekarski, CCE S-11 Applied Engineering Economics - Julian A. Piekarski, CCE S-12 Productivity Management - James M. Neil, CCE S-13 Value Engineering and Constructability - James M. Neil, CCE and Brisbane H. Brown, Jr.

